**Control of Temperature in Homeotherms**

Animals capable of temperature regulation within a given range are deemed homeotherms (alternatively homiotherms or homotherms). They have the ability to regulate temperature via negative feedback control.

Temperature is controlled in a variety of ways in these animals.

The hypothalamus once again acts as a receptor in regulation, by detecting fluctuations in temperature. These receptors are better known as thermoreceptors.

Skin also possesses thermoreceptors which can detect the temperature of the external environment. This information is relayed to the hypothalamus which can in turn transmit nerve pulses for corrective mechanisms to occur

**Corrective Mechanisms in Temperature Control**

Increased sweating is a corrective response aimed to reduce the temperature of the organism.

Vasodilation is a corrective response where the blood vessels close to the skin surface become more dilated, meaning their is a larger surface area for heat to be lost of the external environment from the blood vessel carrying over-heated blood.

Vasoconstriction is the opposite of this and occurs when temperatures in an organism drop. The blood vessels become constricted so that minimal heat loss occurs.

The hairs on your body also play an important role in temperature regulation. A corrective response can occur where the hairs 'stand on end', and trap a layer of air between the hair and the skin. This insulation of warmer air next to the skin reduces heat lost, while a thin layer of insulation would increase heat loss.

Other corrective mechanisms are involved, such as a drop in metabolic rate and shivering when temperatures drop.